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RELIGIOSITY AND RELIGION

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Auto-rickshaw pricing in Chennai

On the Indus Water Treaty

Challenges for the media

Indicator of the next Stuxnet

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A fair auto fare

Greater utilisation of autorickshaws in Chennai will lead to a virtuous cycle of lower fares and greater demand



okkamocha

Several cities in India are in the process of building Mass Rapid Transport Systems. Delhi already has a Metro. Mumbai is building one to supplement the local trains. Ahmedabad has a Bus Rapid Transport (BRT) system, and Bangalore, too, is in the process of getting a Metro. However, one thing that connects all these systems is that they are “sparse”, in the sense that large parts of the city are beyond walking distance from the nearest public transport station.

An efficient local taxi or auto rickshaw system, thus, is of paramount importance to ferry passengers to and from the stations. In the absence of this system, passengers would be forced to use private vehicles to reach the nearest station and that might dissuade them from using public transport. Auto rickshaws also perform an important role in reducing private cars on the roads and repressing the

demand for parking space in busy areas.

World over, auto rickshaws and taxis are regulated by the local governments by setting a fare structure, usually in the form of rupees per kilometre, and by issuing licenses to control the number of auto rickshaws on the streets. The former provides the customers a sense of certainty about how much their journey would potentially cost, and saves them valuable time which would otherwise be spent at the beginning of a journey bargaining for the fare. The latter ensures that the profits of auto rickshaw drivers—rather, license owners, rather—are protected.

Unfortunately the system in most cities in India is broken, and most notably so in Chennai. The government-mandated meter is never switched on, and the passenger has to negotiate the fare upfront before boarding.

Residents of the city consider the system to be highly overpriced, and a significant section doesn't even venture to travel by it. In Bangalore and Mumbai, rickshaws refuse to ply to areas from where they are unlikely to get onward passengers, and in a number of cities, it is rumoured that the number of autos on the road far exceeds the number of licenses issued.

This is a Nash equilibrium where prices are high and utilisation is low

Auto rickshaw regulation in Chennai has failed to such an extent that authorities haven't even bothered to increase the official fares for over five years now, a period over which fares in Bangalore have gone up by 50 percent. Drivers also mention high rickshaw rentals (most drivers don't own their vehicles) to justify the high price they quote. While this suggests that there might be a shortage in the number of licenses issued, the real issue seems to be one of utilisation.

Look around at any busy intersection or auto rickshaw stand in Chennai, and you are likely to see a large number of empty auto rickshaws, many more than you would in any other major Indian city. Walk on a busy road, and you are likely to see several empty auto rickshaws stop by you, in the hope that you will hail them. These scenes give an impression that there are actually too many rickshaws in the city.

This is a strong indication that the free market—which the Chennai auto rickshaw

market can be approximated to, given the failure in regulation—has failed. Prices seem to have settled into some sort of a local optimum at a level which is much higher than the market clearing price, the price at which quantity demanded equals quantity supplied. Drivers are willing to supply more at this price, but the demand is not there. The logical reaction to this would be for drivers to drop their prices, but it appears the market is too inelastic for that to work. In other words, if auto rickshaw drivers across Chennai were to drop their prices, the resulting increase in demand would not compensate enough for the diminished margins: else the market wouldn't have settled at current levels. There is also the problem that this is a decentralised market, and a coordinated effort would be necessary to spur demand.

As it stands however, the underlying problem here is one of perception. Auto rickshaws in Chennai are simply deemed to be “too expensive”, and large sections of the local population don't even try to travel by them. Those that do are typically people who are indifferent to small changes in price. So we have this sort of Nash equilibrium where prices are high and utilisation is low.

What we need is an effort to nudge utilisation upwards, which would lead to a virtuous cycle of lower fares and greater demand. However, this needs to be a coordinated, city-wide effort, and needs to be backed up by efforts with driver unions to try and reduce their fares. It is not an easy road from here, but improving auto rickshaw efficiency will be an important step in improving the traffic efficiency of Chennai.

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Religiosity in a multi-religious world

Religion offers the very best and the very worst

Cristina Vaquer



From time immemorial the faithful have believed their religion to have originated through the divine inspiration of a universal supreme being. To them, indeed to most of mankind, religiosity is a key to spirituality and a medium through which to seek access to the divine spirit.

Despite numerous positive functions that religion serves, it is hard to escape noticing that it also has divided people and engendered conflicts of enormous proportions throughout history. Wars have been fought and crusades launched in its name. It has been blamed for distorting the judgment of the faithful and has often been the source of conflict with those of other faiths. It was because of this that the 19th century German scholar Karl Marx

passionately decried religiosity as false consciousness. More recently, Richard Dawkins (*The God Delusion*, 2006) and Christopher Hitchens (*God Is Not Great: How Religion Poisons Everything*, 2007), for example, condemned religion for its supposed irrationality and intolerance as well as for promotion of hatred and violence.

Even though religious truth may have been derived through divine inspiration as believed, this truth is received by people who are less than divine, and some of whom are given to what may be termed as “religious narcissism.” The orthodox may also take religious edicts blindly notwithstanding logic, common sense or human rights considerations. Some of these issues can be encapsulated as: the relationship between

science and religion; fundamentalism; and the nature of myths and legends.

The relationship between science and religion has often been in a state of tension. Life in the earlier human societies, as Herbert Spencer argued, was simple, coherent and undifferentiated. Science was in a primitive stage of development—much of the vagaries of natural and human condition being explained through religious doctrines. But as science began to develop, it started challenging premises once advanced by religion. Formal religion used its full weight to deter the advancement of science practically at every step of the way. Religion's insistence that all questions in regard to faith must be abandoned would negate much of what we know in the realms of archeology, anthropology and geology.

The role of religious fundamentalists also needs to be taken into account. These are the people who claim that they are doing God's bidding. They are absolutely convinced about the correctness of their thinking. They more often than not pursue their cause through a militant imposition of what they claim as the ultimate version of the "truth"—that is, their truth.

Probably all religions have associated with them an array of myths and legends shaped in ancient times about the supernatural world and the sacred truths, e.g., an account of how the world came into being, of gods and goddesses, and heroes and villains, as well as an explanation of the salient features of rituals and institutions.

It is, perhaps, hard for the faithful to accept that even though considered hallowed, myths and legends are largely fictional. Some of the great myths and legends relate to, for example: virgin birth, talking snake, parting of the sea, revelations from God, horse flying to heaven, multi-headed gods and demons with magical attributes, monkey-god carrying an entire mountain on his shoulders as well as crossing a strait between two countries in one leap, walking on water, and myriads of other supernatural feats. To the believers, myths of their own religion are true; others' just fanciful.

Sociological perspective places religion in its social context. Originally theorised by the French sociologist, Emile Durkheim, religion is conceived as a social product. It serves as a source of solidarity in that it brings people together in common social bonding. Religion provides security and solace, especially in times of grief. Its rites serve to embed and transmit values, maintain prohibition and taboo, and reaffirm communal solidarity. Religion plays a vital social function as an integrative force.

At the beginning of history when great religions dawned upon the earth with inspiring messages, most of the faithful lived with their own kind in their own enclaves, and followed similar customs, habits and belief systems. Separated by distance and time, interaction between the adherents of different faiths was fewer and far in-between.

But we live in a different kind of world now. It is a globalised world characterised by increasing interaction between people despite a variety of allegiance along lines of ethnicity, religion and national origin. The world has become a home to a new generation of homosapiens who are curious about others. We live in an interdependent world that calls for cooperation, accommodation and interaction on the basis of "live and let live." As John Donne, the British poet once wrote "no man is an island." This is truer today than ever before.

Given the multi-religious context wherein people from all over carry on social, economic and political transactions today, a propitious beginning for the institution of religion will be to be emancipated from narrow and sectarian confines, if any. This emancipation will not be easy; the faithful have to become less rigid and more tolerant, thus heralding an environment of caring and sharing. The need of the hour is to have a new paradigm—a new perspective of religion in a globalised world where people from diverse religious and cultural background can freely interact with others without being molested or discriminated.

Let us return to the question of confrontation between scientific and

religious truth-claims. Taking a leaf from the work of Austrian philosopher Herbert Feigl, both science and religion as concepts are misunderstood and have problems. The problem with religion is its exclusive concern with faith and belief based on theology and metaphysics. In regard to science, the problem is its exclusive concern with the “practical” with little regard to human values. Feigl advanced a new truth concept viz., “scientific humanism” that would be squarely based on science and have an abiding interest in human values such as life, liberty, pursuit of happiness, human dignity, freedom of expression, religious freedom and respect for differences. Religious truths, even though based on a system of beliefs, should nevertheless be, first, answerable to reason and, second, have human values incorporated into it.

Even a cursory review of recent history informs us that nations which champion democracy and secularism tend to separate their state policies from religious doctrines. Decision-making in these countries is more or less free from constraints of ideology, dogma, creed or precepts laid down eons ago by high priests of economic or religious order. More likely to be advanced and prosperous, these countries tend to have an educated citizenry and a satisfying quality of life.

Many in the Third World countries in Asia, Africa and Latin America, however, find themselves stagnated into a state of under-development and poverty. Many of these countries are staunchly religious which also defines their world-view. Instead of investing energy and resources into nation-building activities, they tend to pursue a sectarian agenda that is not only wasteful and undemocratic but deters development and promotes conflicts. Unless this world-view is changed, these countries are destined to live a life of poverty and destitution, and a poor quality of life.

In his fascinating book “You don’t have to be wrong for me to be right—Faith without Fanaticism”, Brad Hirschfield makes a strong case for not going for watertight answers to all the complex issues involving life. The possible problematic part of faith, he points out, is that it “simplifies things that need to remain complex, instead of giving us strength to live with complexity, when it gives answers where none exists...,” when it offers certainty where there needs to be doubt, and when it tells us that we have arrived when we should still be searching.

Nations which champion democracy and secularism tend to separate their state policies from religious doctrines

Religion evokes the best and the worst in human nature. We have to recognise both and learn to live with both. It is a folly, as per Hirschfield, to see only the good or only the bad because in the former case one becomes an apologist and makes no effort to take the responsibility for the incredible suffering that religion is capable of unleashing. “When faith is working right, it can be profound, inspiring, and a great force for positive change in the world, and it can help us lead more giving, productive and fulfilling lives.”

Two great religious leaders in recent years addressed the issue of faith and religion. Pope Benedict XVI exhorted that with faith must come reason. That meant that faith had to make sense, had to be just and fair, and kind and compassionate. The Dalai Lama, the Buddhist leader, made an impassioned plea to preserve all religious traditions. We must be able to live and love and worship our god in our own fashion. There is no other way.

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Why Justice Katju is wrong

Seeking homogeneity in the press or threatening to use strong-arm methods is not the answer to challenges of coverage

The Delhi-based Foundation for Media Professionals (FMP) and the Press Club of India (PCI) were to hold a panel discussion on November 12 on the new Press Council Chairman, Justice Katju's observations on journalists. The retired Supreme Court judge was to speak, along with a galaxy of media luminaries. On November 11, the event was cancelled, with the organisers putting out a text message explaining that the cancellation "follows a disagreement between FMP, PCI and Justice Katju on the format of the discussion."

This was yet another brush between Justice Katju and the media. Unwittingly perhaps, he has been controversial in his new role from the word go. His pronouncements against journalists and sweeping generalisations about the state of the media have created widespread disquiet in the media fraternity.

The Press Council of India is a statutory body set up to function as a watchdog of the press, as well as to preserve the freedom of the press and maintain and improve the standards of newspapers and news agencies in India.

The Press Council has long been perceived as toothless. Clearly, the learned judge intends to take his job seriously and seeks to transform the canine into a tiger. To that end he has sought to expand the mandate of the Press Council from just the print media to include news television and has demanded draconian powers for the Press Council that

would enable it to wield the "danda" and strike fear in the hearts of journalists. Not surprisingly, the press corps has seen red and media organisations have protested loudly.

Justice Katju has identified three "major defects" in the Indian media: It focuses on trivialities and non-issues; it is communally divisive; and it promotes irrational beliefs like astrology and superstition.

Justice Katju is not off the mark when he levels these charges. Sections of the media do indulge in these practices. But he misses the big picture, betrays lack of knowledge about how the media works and makes the mistake of regarding the media as a homogenous entity.

However, there is something much more disturbing about his views. He appears to belong to a school of thought championed by the Indian government in the 1970s and the 80s. Justice Katju says "it is the duty of all patriotic people, including the media, to help our society" by focusing on issues of poverty, economic backwardness, feudalism and social backwardness.

This call to duty brings to mind the Soviet-inspired theories propounded by the champions of a New World Information and Communication Order some three decades ago. News is a social good and must serve a social purpose, they said, not a commodity in the competitive marketplace. Providing information is a social function; it should

not be a business transaction. There was an insistence that the press purvey “development news”. Shedding its adversary role, the press must make common cause with the government in the supreme task of nation-building, it was asserted.

A “committed” press would obviously be under the thumb of the government. What if Justice Katju gets his “danda” and uses it to nudge the press towards such a subservient role? Far from taking India forward, he appears inclined to take the country back to a day and age it has left far behind.

Justice Katju does not name the rise of paid news as a major challenge

It is surprising Justice Katju does not name the rise of paid news as a major challenge. On this pernicious practice, a topic of raging debate in media circles since last year, the Press Council has been able to do precious little. Worse, it was alleged that the Council, during the tenure of Justice Katju’s predecessor, allowed itself to be browbeaten by Big Media on the issue of its own inquiry into the phenomenon of paid news. If Justice Katju can direct his energies constructively to help contain this threat by re-establishing the clear line of division between paid content and editorial matter, he will have done the country and the media a signal service.

The other area where he could contribute is persuading editors to pay attention to the alarming decline in standards. The way to do it is to not to describe the entire press corps as lacking in education, as he has done. A surer bet would be to urge the media to invest more in hiring better quality staff and, thereafter, in training them and honing their skills.

Justice Katju’s admonitions would have gone down better with the media if he had also acknowledged its tremendous contribution to the growth of democratic society in India. It is the press, its many flaws notwithstanding, which is bringing to

light all that is wrong with governance in the country. It is not difficult to guess how society would have erupted had it not been for the pressure cooker effect of the press.

Justice Katju would have also carried more conviction if he had not treated the media as a homogenous monolith, discounting its tremendous variety. It is this variety that provides choice to the consumer and allows for balance.

Justice Katju may have issues with the quality of news coverage. He must realise that this has a lot to do with the economics of newsgathering. More importantly, such is the variety of media outlets in the country that no real issue or significant development goes unreported. A case in point is Manipur today. Manipur’s tragedy did get less play in the mainstream media. But not any longer.

Seeking homogeneity in the press or threatening to use strong-arm methods is not the answer to challenges of coverage. Both will impose curbs on the freedom of the press. Such curbs are unacceptable. None other than Mahatma Gandhi made that clear: “The press is a great power, but... an uncontrolled pen serves but to destroy. If the control is from without, it proves more poisonous than want of control. It can be profitable only when exercised from within. If this line of reasoning is correct, how many of the journals in the world would withstand the test? But who would stop those that are useless? And who should be the judge? The useful and useless must, like good and evil, generally go together and man must make the choice.”

So, the Mahatma abhorred control from without and lauded choice. Justice Katju appears not to like choice and he seeks to regulate from without.

“Self-regulation is no regulation,” he has told TV news broadcasters and asked them whether they were willing to come under the Lokpal, if not under the Press Council! So, here’s more work for Big Brother. 1984 is here.

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Water are we arguing about?

Honouring the Indus Water Treaty and moving forward



International Rivers

Transboundary waters are largely viewed as drivers of conflict – creating potential avenues for “water wars” between nation states in the future. But these same waters can also provide avenues for cross-border cooperation. The Indus River, shared between India and Pakistan, is a prime example of this.

If India and Pakistan were to share a certain level of trust in existing mechanisms like the Indus Water Treaty (IWT), they could move beyond the traditional concerns of water division, towards more contemporary concerns like climate change and efficient water usage. If not, the two countries will be mired in endless and easily avoidable political controversies while growing water demand and dwindling resources engulf and

debilitate the region.

The Indus River was partitioned between the two countries in 1960, much like the land was partitioned in 1947, under the Indus Water Treaty (IWT). India received 20 percent of the total flow via the Eastern Rivers (Ravi, Beas and Sutlej) while Pakistan received 80 percent or 135 MAF of the total flow via the Western Rivers (Indus, Jhelum and Chenab). The partition, once agreed upon, left very little room for controversy.

However India was also accorded customary usage of the Western Rivers for agriculture and hydel power generation and most of the water issues between India and Pakistan arise over this usage, particularly, India's Run-of-the-River (RoR) dams on the Western Rivers.

Islamabad repeatedly voices concerns that India will use these dams on the Western Rivers to block or flood water flowing into Pakistan while conservative Pakistani media sources and even militant factions repeatedly accuse India of exercising 'water aggression' and turning Pakistan into a desert. The Pakistani Army told Washington this year that "water is taking a centre stage to an array of disputes between India and Pakistan."

These fears and accusations are more or less unnecessary. There are mechanisms in place to check these dams.

The IWT provides a simple procedure to address basic concerns about Indian dams on the Western Rivers. If Pakistan has 'questions' about the dams they are discussed in the Indus Water Commission, if there are 'differences' between India and Pakistan concerning any dam the case can be referred to a neutral expert and if a 'dispute' arises over the construction of a dam, or the interpretation of the treaty itself, then the case can be tried under a Court of Arbitration.

These mechanisms have been used in the past, are presently being exercised and will be adhered to in the future.

In 1999, Pakistan raised objections over the design of the Baglihar Dam. After several rounds of unsuccessful talks there were still some disagreements over the height of the freeboard, the inclusion of gated spillways and the level of pondage the issue was deemed a 'difference'. In 2005, a neutral expert named Raymond Lafitte was consulted and in 2007 changes were made to the design of the dam and construction of the Baglihar dam was cleared.

The Wullar Barrage or the Tulbul Navigational Lock was subjected to design changes by India in the early 1990s after Pakistan raised objections in 1986 and the project has actually been stalled even after these changes were made due to continued disagreements. Now in order to overcome the political deadlock and address serious concerns about navigation and flooding, the design of the barrage on the Jhelum

River might be amended even further from a concrete barrage to a series of temporary rubber dams.

Proceedings over the Kishanganga Dam have been deemed a 'dispute' and the case is currently being tried in a 'Court of Arbitration'. It is being considered by international, Pakistani and Indian legal and hydrological experts.

The Indian government has not confirmed the design of the Bursar project yet, but once it does the design of the dam will be handed over to Pakistan, 6 months before construction as stipulated, and will no doubt undergo the same level of scrutiny from Indian, Pakistani and even international quarters if need be.

Other dams also undergo a rigorous process of discussion between the Indian and Pakistani officials in the Indus Water Commission and at times do not need to undergo rigorous debate and arbitration.

It is also very important for Indians and Pakistanis to understand that run-of-the-river dams are not like conventional dams; they do not hold large amounts of water. Each RoR dam has negligible storage capacity (known as pondage) and hence cannot cause any sort of significant damage to Pakistan's water supply. As Mr. Brahma Chellaney states 'you can not store running water'.

Pakistan has now raised concerns that individual dams built on the Western Rivers might not be able to exert damage on Pakistan but the cumulative storage of all the existing and planned dams may. So let us address this concern as well.

The current cumulative impact of Indian dams on the three Western Rivers of the Indus is not in violation of the IWT nor is it detrimental to the flow of water into Pakistan, even during the months when surface water flow is at its lowest. As for the future capacity it should also be taken into account that all these projects are still "potential" dams. Their design and storage capacity will first go through a consultation process with Pakistan as per the specifications of the IWT.

The issue of cumulative storage is relatively new and needs to be studied in detail. Nevertheless, if India were to hold back or release a significant portion of water in Pakistan it would risk international recrimination for its actions, a potential attack from Pakistan and destruction of around a 150 km of its own agricultural land and infrastructure; a cost that would run into several thousand crores.

Now, Pakistan's anxieties as the lower riparian (recipient) of the Indus River waters are understandable. Close to 80 percent of its total freshwater flows come from the western tributaries of the Indus River. In addition Pakistan's per capita water availability is teetering precariously close to the 'water scarcity' threshold at just above 1,000 m³/capita; and this makes the country very anxious about ensuring its total share of water from these rivers.

But these fears have to be based on facts rather than emotion and the facts show that Pakistan's anxieties about alterations in river-flow patterns can be better addressed by looking at internal and environmental factors.

Demand Management:

Pakistan's irrigation sector has some of the lowest conveyance efficiencies in the world. As a result 25 percent of the existing water supply allotted to the irrigation sector is misplaced in 'line losses'. On top of this, only 36 percent of the water is actually absorbed by the crops due to poor 'field application efficiency'. The Indus River also has some of the highest silt loads in the world and due to this over 6 MAF, 20 percent of Pakistan's storage capacity, has been lost. Salinity due to over-pumping of groundwater is another urgent issue, affecting 6.8 million hectares of irrigable land. At times, uneven division amongst different states within Pakistan, rather than uneven distribution between India and Pakistan proves to be the reason for discord over water. PoK and Sindh allege that Punjab enjoys a favoured status with regard to internal water distribution.

Climate Change:

In addition, Pakistan might not have an

availability of 135 MAF via the Indus in another 10 years; not because of Indian dams but because of the effects of climate change. 40-60 percent of the water flow in the Indus River comes from glacial meltwater from the Himalayas and according to the Former Head of China's Meteorological Administration Qin Dahe the Tibetan glaciers are retreating faster than any other glaciers in the world. Once these glaciers vanish he says, "water supplies in Pakistan will be in peril."

In order to treat rivers as a shared and limited resource, India and Pakistan must move towards a more collaborative paradigm

According to NASA's satellite images the devastating floods that covered a fifth of Pakistan's total land mass in 2010 were not an attack engineered by India via its dams but rather unusually heavy monsoons, potentially caused by the La Nina effect that enhances Asian monsoons, and abnormally high temperatures in the Arabian Sea off the coast of Pakistan. Quite frankly there is very little India can do when the environment overwhelms its existing capacity to hold back excessive monsoon water.

Several water and political analysts realize that it is not water division but rather demand management and climate change that need to be addressed – and this a common problem across the region, not just in Pakistan. According to Michael Kugelman demand-side water management inside individual countries is as important for South Asian water security as are trans-national water mechanisms. South Asia houses a quarter of the world's population, yet has less than 5 percent of its annual renewable water resources so economic usage of this water is key to solving the water problems in the region. With regard to climate change, Dr. Leena Srivastava recently provided evidence

in her research which shows that some of the Himalayan glaciers are melting more rapidly than the global average and this in turn could increase the frequency of floods in the short run and increase water shortages in the long term in South Asia.

Now a combative approach purely about water division can be addressed under the stipulations set out by the IWT but in order to treat the river as a shared and limited resource, India and Pakistan need to start moving towards a more collaborative paradigm. The only place that this is alluded to in the treaty is under the 'Future Cooperation' section. This section needs to be developed further.

Future cooperation could include a transboundary effort to ensure the better usage of existing water resources. This could be done via an Integrated River Basin Management program. Projects that encourage better water management practices on both sides of the border can expand the Indo-Pak spheres of cooperation and create a more sustainable approach towards water. There is in fact a project, conducted by LUMS Pakistan (Lahore University of Management Sciences) and ORF India (Observer Research Foundation), which is doing exactly that – exchanging ideas on the best water management practices in both the Punjabs.

Future cooperation could include a detailed study on resource-sharing between India and Pakistan. Rafay Alam, a member of the faculty at LUMS-Lahore, has suggested that India and Pakistan should conduct a 'Transboundary Water Opportunity

Analysis'. This analysis would study the shared political, social and most importantly economic benefits of water-sharing. It would include initiatives like Pakistan purchasing electricity generated from Indian hydro-electricity projects in J&K (as opposed to importing oil and gas from the volatile international market), India investing in and benefitting from aquaculture or fisheries in Pakistan on the Eastern rivers and even joint measures to harvest rainwater.

Lastly, India and Pakistan require cooperation on reducing the impact of climate change. According to B.G. Verghese, debris dams, torrential surges and Glacial Lake Outburst Floods or GLOFs are already on the increase and these can cause severe damage to both India and Pakistan if they are not adequately monitored and managed. It would therefore behove both India and Pakistan to cooperate on issues like disaster management and early warning systems as well as measures that would reduce global warming in the sub-continent.

It is important to start defining the true meaning of water cooperation by evolving Indo-Pak hydro-politics from endless and unnecessary debates over 'water division' and RoR dams to more sustainable and resource-friendly efforts like demand management, resource sharing and disaster management. Ultimately, the former will maintain a political and developmental deadlock between the two states while the latter could save millions of lives in India as well as Pakistan.

Based on a report by Strategic Foresight Group called the 'Indus Equation'

ROHAN JOSHI

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Don't tinker with the treaty

Any changes to the Indus Water Treaty warrant a serious national debate in India

World Bank Photo Collection



Although considerable attention has been given in mainstream media to Pakistan's water crisis, narratives vary greatly in India and Pakistan. In the context of these varying accounts, Gitanjali Bakshi and Sahiba Trivedi's paper "*The Indus Equation*" is a commendable work that provides perspective on water dynamics in the subcontinent and highlights the scope, extent and causes of Pakistan's water crisis. However, while some enhancements to the Indus Waters Treaty (IWT) can be envisaged, a large-scale reshaping of the IWT itself is not entirely desirable for India at this time. While it could be argued that the Treaty is less than optimal today, it has come further than any India-Pakistan agreement and has stood the test of time by providing a

framework for sharing IWT waters and amicably resolving issues of contention. Introducing substantial changes to the IWT could conceivably damage the agreement itself.

Anxiety over water scarcity and cognizance of Pakistan's vulnerability as a lower riparian led General Ayub Khan to seek a treaty with India over the sharing of the waters of the Indus River system. The treaty, brokered by the World Bank, was signed in September 1960 in Karachi by Ayub Khan and Nehru. The IWT gives exclusive use of the Western rivers of the Indus River system—the Indus, Chenab and Jhelum—to Pakistan, and the Eastern rivers—the Sutlej, Ravi and Beas—to India. The IWT also established a Permanent Indus Commission, with representation from

both India and Pakistan, to cooperate on matters related to the Treaty.

Today, the IWT is crucial to the survival and sustainability of agriculture in Pakistan's Indus Basin. Pakistan's economy is largely agrarian, accounting for 25 percent of GDP, and employing 50 percent of Pakistan's work force. As a water intensive sector, agriculture in Pakistan consumes about 95 percent of available water annually according to the Asian Development Bank, while the rest are allocated for rural, urban and industrial use.

Pakistan's poor construction and maintenance of canals has caused a significant amount of water loss in the Indus Basin

Unfortunately, the undeniable benefits of the treaty to Pakistan have been obscured by misplaced apprehension and aggression. Ayub Khan's fears of Pakistan's water insecurity did not prevent him from waging war against India in 1965. Since then, Pakistan has imposed war on India twice and provoked India through insurgencies and terror. Yet, India continues to respect the IWT in letter and spirit, not denying Pakistan its share of water even during times of war. Indeed, India itself, as a lower riparian to China, does not have the luxury of a treaty over the use of the Brahmaputra. Nor do Pakistan and Afghanistan have an equivalent treaty over the use of the Kabul River.

However, overwhelmingly popular themes in Pakistan on IWT accuse India of using water as a means to further its strategic objectives. Pakistan's far right Urdu newspaper Nawa-i-waqt accuses India of "water terrorism" and has opined that Pakistan must use its nuclear weapons to resolve its problems with India. Former chief of ISI, Lt Gen Hamid Gul urged Pakistan to be determined in the face of

India's "aggression," adding that "if necessary, India's dams will be blown up." The view that India's calculated construction of dams obstructs the flow of the western rivers in Pakistan is so popular, and the pressure on the government to "resolve" this so great, that Islamabad has attempted to make the "issue" of water a component of potential "composite dialogues" with India. This, despite there already being a mechanism to resolve water-related differences and disputes between India and Pakistan via the Neutral Expert and the Court of Arbitration, per the IWT.

Although it is true that Pakistan suffers from water shortages, India's imagined role in contributing to these shortages is minimal, at best. Pakistan's water problems are due to a historic mismanagement of resources by Pakistan and lack of any credible strategy to address either current or future water requirements. Pakistan suffers from a lack of adequate water storage capacity, and by some estimates, can only store about 15 percent of annual river flow. Despite projections of acute future water shortages, Pakistan has not invested in developing adequate storage capacity since the building of the Tarbela dam, over 35 years ago. Worse, sedimentation has significantly affected overall storage capacity of its dams. According to a report published by Hydrology and Earth System Sciences, sedimentation has resulted in a reduction of Tarbela's capacity by 28 per cent.

Pakistan's poor construction and maintenance of canals has caused a significant amount of water loss in the Indus Basin. By some estimates, water losses from unlined canals ranged from 64-68 percent. Indeed, water loss even in lined canals in Pakistan, which are old and poorly maintained, was estimated at 35 to 52 percent, according to a paper published by the University of Agriculture, Faisalabad. Further, the use of saline groundwater for irrigation has significantly impacted agricultural yield in areas where river water is inaccessible.

Other factors such as climate change and population growth will continue to pose considerable challenges to Pakistan's water

security. Himalayan glaciers that form a primary water source for the Indus, are rapidly melting and will negatively affect water availability in Pakistan in the long term. Further, Pakistan's population growth rate of 1.56 percent (the fastest in the subcontinent), and the lack of any concrete plans to address already existing water shortages will mean that Pakistan will very soon make the transition from a "water-stressed" country to a "water-scarce" country, according to a report published by the World Bank.

Certainly, transnational water sharing is a complicated subject. In our own region, the sharing of water between states and provinces has been an emotive issue, as evidenced by the disputes over the Kalabagh dam between the Pakistani provinces of Punjab and Sindh, and the Kaveri dispute between Tamil Nadu and Karnataka. There is no denying that Pakistan's water challenges are real, notwithstanding the dubious causes suggested. And it behooves India, as a neighbour, to help Pakistan address some of these challenges, where possible.

However, one must recognise that Pakistan's water problems are its own and that to a great extent, the solutions to these problems lie in Pakistan. India cannot be expected to display magnanimity towards Pakistan when Pakistan itself has not demonstrated a basic

desire to tackle structural and governance issues in water management. While forums such as the Pakistan-U.S. Dialogue on Water are encouraging steps, Pakistan needs to do much more to convince its people and neighbours that it accepts responsibility and is endeavouring to address these issues.

Pakistan's water problems are its own and the solutions to these problems lie in Pakistan

In India, a national debate is necessary before committing to any significant changes to the IWT, and whether these changes would be in India's national interests. Any potential Indian magnanimity runs the risk of being perceived from across the border as either a sign of weakness or accepted with a sense of entitlement. India must consider whether, and to what extent, any changes or compromise will enhance its own national interests. Certainly, Islamabad's own inflexibility and insensitivity towards addressing India's core issues, including Pakistan's continued use of terrorism as an instrument of state policy, may make any possible Indian accommodation on Pakistan's water problems remote.

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A (WTF) downgrade

Moody's downgrade of Indian banking system outlook from 'stable' to 'negative' is hard to explain

Eric Parker



It was a bad day at the office for Indian economy on the 9th November, even if it was not one for the Indian cricketers at the Delhi Feroz Shah Kotla Maidan, against the visiting West Indies. Automobile sales plunged in October. That is no bad thing actually given the imbalance between consumption (too much) and investment spending (too little) in India. Then, one does not have to feel bad about plunging car sales in India.

A Wikipedia entry notes that Pakistan has the highest number of vehicle in the world running on Compressed Natural Gas. Therefore, the plunging sale of autos in a country that is polluted by petrol and diesel vehicles (Is Delhi more or less polluted than Beijing?) is actually a good thing.

Then, Moody's downgraded the outlook

for Indian banking system from stable to negative.

That there are cyclical problems facing Indian banks is not in dispute. Government is pre-empting loan funds of the banking system and is not compensating the banks adequately. They are deprived of lending them to the private sector at higher rates of interest. Savings rates have been de-regulated. So, banks would compete and pay more for tapping people's savings. Corporate profits are declining and hence bad debts provisioning will rise too. All this is known and India is paying the price for its transparency.

Its giant neighbour (China was never a neighbour to India throughout history and this is another topic for another occasion) to the North has an entirely State dominated

banking system and an economy with even greater financial repression. It undercounts and under-reports its bad debts systematically. Those who dare to raise their voice are forced to withdraw their reports (See <http://www.marketwatch.com/story/ernst-young-says-it-overestimated-chinas-bad-debt>).

Banks have large exposure to local governments who are dependent on land banks sales for their revenues. Banks have exposure to developers who want the prices of land banks to decline. Their apartment prices are dropping and transactions are plunging. A more recent Bloomberg/BusinessWeek news story points out that 473 billion dollar worth of loans outstanding from China Township governments has not been accounted for by the National Audit Office report published in June (<http://www.businessweek.com/news/2011-11-13/china-s-total-local-debt-may-top-audit-estimates-observer-says.html>). So, we have no idea of the true health of Chinese banks or, for that matter, the whole economy. We will never have one.

Yet, on November 8th, Moody's reaffirmed its 'stable' outlook for Chinese banks.

Readers should take note of a salient comment made by James Kynge in his piece in Financial Times ('Cracks in Beijing's financial edifice') on October 9th. His key sentence is reproduced below:

"... the pertinent question today is not whether China can once again guide the global economy away from the rocks but whether Beijing retains decisive control over its own economic levers...."

It is useful to remember and recall here that Italy's troubles started after Moody's decided to place Italy's debt rating on review for possible downgrade. It was on June 17th. At that time, the 10-year Italian sovereign yield was 4.8%. It went to as high as 7.5% recently and only sustained buying of the bond by the European Central Bank has brought it back below 7.0%. In trying to anticipate contagion, Moody's has precipitated a contagion.

Let us now remind ourselves the role

played by American financial institutions in helping European sovereigns hide their debt. Accessories to a crime are equally guilty. Interestingly, in a news-story dated February 25, 2010 in the *Financial Times*, Mr. Bernanke (the chairman of the US Federal Reserve Board) is cited promising an investigation into the role of Goldman Sachs in helping camouflaging its debt. Whatever happened to that investigation?

We have no idea of the true health of Chinese banks or the Chinese economy

Whereas they did not follow the S&P on the downgrade of the US debt and they have retained the 'stable' rating for China banks, after expressing grave doubts on Chinese local government bad debt estimates.

Standard & Poor, in contrast, upgraded India's banking industry risk assessment from 6 to 5 on the same day Moody's downgraded its outlook. It brought down India's risk assessment from 6 to 5, placing it on par with China, Thailand, Turkey and Portugal. Fitchratings

Based on the last publicly available report (Outlook: Asia-Pacific Banks, January 31, 2011) issued by FitchRatings, India's banking systemic risk rating is C1 compared to China's D3. The lower the alphabet, the better the rating (i.e., the lower the risk) is.

As the world economy faces critical times, high-stakes games at the geo-political level are inevitable. Private sector entities would not be above being co-opted into these processes because their conduct then and now leaves enough scope for their governments to arm-twist them into co-operating with the governments' mission. One cannot eliminate it but certainly more competition would help.

There is clearly a need for some credible rating agency from the developing world to emerge. Right now, there is only Dagong from China. More are required.

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Duqu: an indicator of the next Stuxnet?

New generation of malware is being honed for purposes that go beyond pranks, notoriety or money

Eric Constantineau



Stuxnet worm was first reported in June 2010 and was credited with several exploits, including sabotaging the Iranian nuclear reactors and possibly even causing the malfunction of the INSAT-4B communication satellite. Now, more than one year on, security experts think that they have stumbled upon a worm that is being described as the precursor to the next Stuxnet and potentially written by the same people who wrote the Stuxnet, or at least by someone who had access to the source code of the Stuxnet worm.

Named Duqu, the worm was first reported by the Laboratory of Cryptography and System Security (CrySyS) of the Budapest University

of Technology and Economics in Hungary on 1st September 2011. The name given to the worm came about due to the “~DQ” prefix that was given to the files it created on the system that it infected. Further analysis by Internet security firm Symantec revealed that the worm may have been in the wild since November 2010 and has so far infected computers in eight countries, including India, and potentially four more.

Just like Stuxnet, Duqu makes use of a 0-day vulnerability against Microsoft to exploit the operating system and install the components of the worm stealthy and just like Stuxnet, it also installs a driver with a valid digital signature, the digital certificate used for this

seem to have been stolen from a company in Taiwan.

However the similarities do not carry over to the suspected intention of the worms. It is now accepted that Stuxnet was written with the intention of compromising industrial control and monitoring systems, often called Supervisory Control and Data Acquisition (SCADA) systems and specifically targeted at the Iranian atomic program, while it is believed that Duqu does not contain any code related to industrial control systems and is primarily a malware designed to give the attacker complete control over the compromised machine remotely, often termed a Remote Access Trojan (RAT). It is also believed to install malwares that records keystrokes and collect other system information from the compromised machine. The attackers were most probably looking for information that could be used in a future attack, hence the description of Duqu being a “precursor to the next Stuxnet.” It does make one wonder as to what we may have missed that was the real precursor to the Stuxnet worm.

Other than the fact that machines in India have been infected with the Duqu virus, there is another curious connection to the Indian cyberspace. Malwares like Duqu use external Command and Control (C&C) servers as a means for the attackers to remotely control the malware, for example to download new executable onto the infected machine, exfiltrate sensitive information from them, update the malware itself and sometimes even to destroy or deactivate it. One of the only three C&C server identified for Duqu was hosted on the IP address 206.183.111.97. This IP address and the virtual private server (VPS) that it belonged to was being hosted by Web Werks, a Mumbai-based

hosting company. According to the company, the VPS belonged to a client in Milan, Italy and because it was a system that was being managed by the client itself, Web Werks did not have any control over what was running in it.

According to reports, officials from the Indian Computer Emergency Response Team (CERT-In) have obtained an image of the VPS before taking it offline. Interestingly, there is no mention of the operation anywhere on CERT-In’s website and officials have refused to comment on the development as it pertains to ongoing investigation.

The attackers were most probably looking for information that could be used in a future attack

Getting hold of the C&C servers however doesn’t seem to have done the investigators a whole lot of good though. Recent reports from Symantec indicate that all the three C&C servers, including the one hosted at Web Werks have been setup to forward all the traffic from the worm to other servers, making the discovery of the final endpoint of the C&C chain hard to pinpoint.

The last few years have seen a drastic uptick in the incidents related to cyber crime and the case of Stuxnet and Duqu have shown us that the new generation of malware are being continually honed for purposes that go beyond pranks, notoriety or money.

Stuxnet opened the Pandora’s box and there is no closing it.

M.RAJAGOPALAN

M Rajagopalan has held senior positions in companies that promote decentralised power solutions

Betting on gas

The only viable option to power India's growth is gas-based power plants

In an excellent example of crowd-sourcing, the website "Power cuts in India", launched this summer, invited people to tweet or text information on power cuts in their neighbourhoods. Messages poured in by the hundreds. The site also provided links to newspaper reports on power disruptions and load shedding in different corners of the country. When the seemingly isolated pieces of information were put together, the big picture was clear. India faced an unprecedented and grim situation on the 'power' front -- one that threatened to bring the country to a standstill.

It is painfully evident that the problem is neither a temporary one nor confined to one part of the country. The malady is pan-Indian and threatens to torment us for a long time.

Given a GDP elasticity factor (amount of electricity required to power 1 percent GDP growth) of 1, we need to ensure an increase of 10 percent in power generation every year. If we need to wipe out existing deficit and bring into the fold about 400 million people who do not have access to power, the target should be much higher. We need an additional 30000 MW every year.

At least, 70 percent of this increase must come from base-load plants that can produce predictable, schedulable electricity round-the-clock and in all seasons. All the rhetoric of adding large doses of clean wind and solar energy can help us feel righteous and green, but these will not serve the immediate purpose, with their characteristics of seasonality, intermittency and unpredictability.

60 percent of our power need is met by coal-based plants, and we continue to place our faith on coal to meet our future requirement. This, we are slowly realising, can be a flawed approach. Large coal plants take many years to come up, if at all. We have not been able to ramp up domestic coal production to meet the growing demand. Relying on imported coal means competing with China for the same sources in Indonesia, Australia and South Africa and paying a high price too. Also, putting all our eggs in the coal basket will lead to serious consequences on the environmental front. The world will hold us accountable for the carbon emission. So we desperately need a second option to help reduce our dependence on coal.

Capacity addition in the form of nuclear plants is desirable, but looks improbable. If an almost-ready Kudankulam is stalled at the last mile, investments in other planned projects may be viewed as fraught with unacceptable risk. Besides, even if we overcome the hurdles and begin work soon, we won't reap the benefit of power supply for many years.

With limited potential of perennial hydro projects (unlike China), we are left, through a process of elimination, only with the option of gas-based generation. Again, three possibilities present themselves. One, domestic gas sources such as KG-Basin; two, cross-country pipelines; and three, importing liquefied natural gas (LNG) through large tankers and re-gasifying them at LNG terminals.

Domestic supplies from KG Basin have not lived up to promise, and the output right

now is less than 50 percent of expected quantity. Even if we manage to step up our exploration and to sort out the technical problems on existing wells, we may have to wait for 3-4 years for things to brighten.

Cross-country pipelines originating in Iran (IPI) and Turkmenistan (TAPI) can help us gain access to large Iranian and Central Asian gas reserves. As these will pass through Pakistan with whom our 'trust deficit' has not shrunk to desired levels, the initiatives have not taken off. But the TAPI project can proceed, if Turkmenistan insists on guarantees from Afghanistan and Pakistan to allow delivery of gas to India (or risk losing their share of supplies as well). India could further hedge its risks by negotiating for a back-ended, 'pay against delivery' mechanism. It would be in Pakistan's interest too to accept such an arrangement, as they stand to earn substantial 'transit fee' to subsidise their capital costs.

The most promising solution—and one within our control—will be LNG. Though the landed cost at today's price is \$12-14/MMBTU (the corresponding cost of power generated in Rs 7-8/kwh), we must place our bets on this fuel. With huge gas finds in the Americas and in other parts of the world, there is growing optimism that global supplies will be plentiful and that the price of natural gas will cool off in the medium term. Our implementation trajectory must be such that we intersect the future at that golden point.

A concomitant development has been the remarkable progress in LNG transportation. Large LNG carriers ply the oceans and many more are being built. Floating storage vessels have also opened up more options.

If tackled on war-footing and if siting issues are quickly handled, the entire infrastructure of additional LNG terminals, hook-up with the national gas grid, fleet of LNG tankers, and gas-based power plants can be put together in 2-3 years.

Gas, apart from enabling large centralised power plants, will also make it possible to set up distributed, smaller power plants within or outside cities and towns. Every large industry and large commercial building can have its own captive power. This will minimise the need to expand the transmission network, with its associated losses. This will also enable the use of waste heat, improving overall efficiency and reducing the carbon footprint. Gas-based plants offer more flexibility and can be used as peaking plants too.

*We can target 30,000 MW
of additional capacity
within three years, using
natural gas*

We can thus target 30,000 MW of additional capacity within three years, using natural gas.

Obviously, we can't make headway if we don't abandon our limiting mindset which treats cost of coal-based power as the eternal benchmark, to the detriment of other fuel types. Looking at the multiplier effect on economic growth and given its indispensable role in enhancing the nation's vitality and security, we need to be prepared to pay a higher price for gas-based electricity. For, this can well be the magic potion we desperately need.

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In Parliament

Upcoming Laws on Delivery of Public Services

One of the key demands by Anna Hazare on the Lok Pal Bill was to include provisions to redress grievances of citizens. Indeed, this demand was one of the three key issues discussed by Parliament in a special Saturday sitting in August. A few states have passed laws in this regard. It is interesting to note that three pieces of legislation at the central level address this issue. A set of Rules notified under the Information Technology Act, 2000 has provisions to ensure that public services are provided through electronic channels. The Electronic Services Delivery Bill, 2011, which has been slated for introduction in the current session of Parliament has similar provisions, with an administrative mechanism. The government has also published the draft Citizen's Right to Grievance Redress Bill, 2010 for public feedback. We discuss the main features of these statutes.

The Electronic Service Delivery Rules 2011 were notified in April 2011 to enable the government to use electronic means to deliver services. The objective was that services such as filing of income tax returns, applications for passports, payment of central excise tax, issue of permits etc. could be provided through the internet. The government may authorise various entities to provide these services for a fee.

Even before these Rules were notified, several government departments had started internet enabled access to services. For example, over five million income tax returns were e-filed in 2009-10 and 15 million PAN cards were allotted through online applications in that period.

It must be noted that these Rules enable departments to use electronic commerce, and to outsource such work. However, there is no requirement for every department to provide services through these channels.

The Electronic Service Delivery Bill, 2010 requires the central and state governments to deliver all public services through the electronic mode within a period of five years from the enactment of the Bill. The Bill recognises the head of every department in the central and state government as the competent authority for ensuring service delivery through electronic means. The government shall notify the list of services which are not feasible to be provided through electronic mode (for example, if it needs a test such as for a driving licence). The government is also required to create a mechanism to address the grievance of any person who is aggrieved by the outcome of a request made for e-service.

The Bill also creates mechanisms similar to the Right to Information Act to ensure that such services are provided. There is a three-person commission in each state and at the national level (Interestingly, only retired civil servants can become members of the commissions). Any person may appeal to the central or state commission if a department head or their subordinate does not comply with the provisions of the Bill. The commission may impose a fine up to Rs 5,000 on the department head or her subordinate.

This Bill will override all other Acts on this topic (including the Rules discussed above). Unlike those Rules, which are of an enabling

nature, this Bill will make it compulsory for every department to provide the option of obtaining services through electronic channels. However, it does not have some of the features of those Rules such as enabling service fees and requiring electronic signatures. It also does not specify safeguards to protect the confidentiality of information collected. Even current systems are lax in this regard. For example, the PAN number of any person can be accessed by providing the name and date of birth.

The draft Citizens Right to Grievance Redress Bill, 2010 requires every public authority to publish a citizen's charter within six months of the commencement of the Act. Public authorities include Constitutional institutions, statutory bodies and NGOs that are substantially financed by the government.

The citizen's charter has to include (a) the details of the goods and services to be provided by the public authority; (b) the name of the authorised person responsible for providing the goods and services; (c) time frame to provide these; (d) class of people entitled to receive these; (e) grievance redressal mechanism; and (f) any other obligation of the public authority.

The Bill provides a grievance redressal mechanism. Every public authority is required to set up an information and facilitation centres to ensure effective delivery of goods and services. Grievance redressal officers (GRO) have to be appointed at every level, i.e., central, state, district and municipalities to inquire into complaints. All complaints must be acknowledged within a day. The GRO has to ensure that complaints are remedied within 15 days and grievances addressed within a month. The complainant will also receive an action taken report.

The Bill also sets up an appellate

procedure. The central government and state governments have to appoint public grievance redressal commissions. If a complainant is unsatisfied with the decision of the GRO, he can appeal to the head of the department within 30 days; the appeal has to be disposed of in 30 days. Appeals against this decision will lie with the state commission and the central commission.

The Bill specifies the selection committee for the state and central commissions. The state commission will be selected by a panel of the chief minister, leader of the opposition and a High Court judge. The central commission will be selected by the prime minister, the leader of the opposition and a Supreme Court judge.

The head of the department or the state or central commission may initiate proceedings against any official if they believe there is *prima facie* evidence of a corrupt action. They may also impose a penalty (at rates to be specified in the Rules) for acting in a malafide manner. However, unlike the draft Electronic Service Delivery Bill and the Right to Information Act, there is no penalty if malafide intent is not established.

The widespread frustration with the government's delivery mechanisms for public services was evident during the Jan Lok Pal agitation. There are three new mechanisms that have been proposed. Two of these focus on electronic delivery mechanisms, thus eliminating the need of human interaction at the service centre, and the potential for harassment and rents. The third tries to make existing delivery systems more accountable by publishing service standards and grievance redressal mechanisms. The two Bills are still at the consultation stage, and interested citizens should engage with the ministry and the parliamentary standing committee to provide their feedback.

RAVI GOPALAN

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Filter

Geopolitical readings

ELIMINATING PIRACY IN THE HORN OF AFRICA

MICHIEL HIJMANS, former commander of NATO's anti-piracy 'Operation Ocean Shield' tracks the shift in piracy over the past two years and states that piracy had shifted significantly beyond the coast of Somalia and the inter-monsoon periods due to the deployment of 'captured' mother-ships that carried more pirates and weaponry alongwith hostages, faster and for longer periods of time, aided by sophisticated navigation and communication systems onboard and supported by a piracy stock market.

In an article for Chatham House publication 'The World Today', "**Threats of the sea**", he states that although the establishment of the Internationally recommended transit corridor (IRTC) through the Gulf of Aden, increased naval and aerial patrolling, 'safe rooms' on board merchant ships, private security personnel and anti-pirate actions by local communities had helped in the fight against piracy, there were other dimensions such as economic and legal that needed to be tackled to eliminate the piracy problem which was now a

7-12 billion dollar problem with about 650 hostages at any given point in time.

He calls for an establishment of an international tribunal for piracy cases to develop a legal framework to prosecute pirates and ensure justice, capacity development in countries such as Seychelles and investment in Puntland to develop a strategic maritime hub to enable the development of alternatives to piracy for the local populace.

GEOENGINEERING FOR CLIMATE CHANGE

DANIEL BODANSKY of the Arizona State University states that geoengineering, a concept encompassing a variety of approaches to counteract the effects of greenhouse gas emissions, covering Solar radiation management (limiting sunlight reaching the earth, through such diverse techniques such as cloud whitening, stratospheric aerosol injection or space-based mirrors) and Carbon dioxide removal (through enhanced weathering of rocks, mechanical trees, ocean fertilization) could increasingly become more salient if efforts to negotiate a new international agreement take

too long to succeed. He states that unless the Kyoto Protocol could either be dramatically increased in scope or replaced by a new, more comprehensive agreement, global emissions will continue to rise and based on the current emissions trajectories, CO₂ emissions could triple or quadruple by end of the century rather than double as has been currently estimated, potentially resulting in far more disastrous, non-linear effects of climate change.

In his discussion paper for the Harvard project on climate agreements, "**Governing Climate Engineering: Scenarios for Analysis**", he states that this has resulted in increasing interest in geoengineering solutions to address climate change and explores the various options currently available as well as costs and benefits of each approach. He highlights the lack of an international governance framework covering geoengineering activities including tasks such as developing norms to guide scientific research, allocating jurisdiction among states to regulate individuals, elaborating rules that constrain state behavior, and establishing procedures to limit conflict among states and predicts that

governance of geoengineering was more likely to develop through the extension of existing treaty regimes to cover various types of geoengineering than through the development of a single comprehensive regime.

CHINESE MARINE SEZS: PUSH TO A GREATER BLUE ECONOMY

LIU SHUGUANG of the Ocean University of China reviews Beijing's marine economic strategy in the wake of spate of approvals for marine economic development zones in Shandong, Zhejiang and Guangdong this year and explores their potential impact on neighboring countries, especially the littoral states of the regional seas.

In an RSIS commentary, **"China's Marine Economy: Opportunities for International Co-operation?"**, he states that Beijing's marine economy initiatives were an important part of its strategic reorientation to reduce export dependence and China's stimulus package for its manufacturing sector and increasing inter-provincial competition accelerated the development of these marine zones centred around the Shandong peninsula to leverage China-Korea free trade agreement, Zhoushan archipelago in Zhejiang province and Guangdong to leverage the China-ASEAN free trade agreement.

He calls for a revamp of China's traditional model characterised by extensive utilization of resources and spaces, FDI for land reclamation and irrational competition among provinces in favor of a

shift to a blue economy based on management and conservation of marine resources and greater international co-operation for effective marine economic strategies.

A SOLUTION TO NAGA INSURGENCY

NAMRATA GOSWAMI of the Institute of Defence Studies and Analysis (IDSA) states that the Naga ethnic conflict could be in the final stages of resolution with a proposal floated by the Union government for a non-territorial Naga council involving a pan-Naga supra state body that would enjoy legal authority over cultural, development and social rights of the Nagas across several states in the Northeast while law and order would remain within the respective states where the Nagas lived.

In an IDSA commentary, **"A non-territorial resolution to the Naga ethnic conflict"**, she states that this solution would amount to a special federal relationship recognizing the distinct identity of the Nagas and a guarantee of non-interference in their lifestyle.

She concludes that the present 'supra-state' proposition of non-territorial unification was a meaningful way to overcome the anxieties of other ethnic communities over the maximalist demand for Nagalim or unification of all Naga-inhabited areas in the NorthEast and calls upon New Delhi to work in consultation with the state governments of Arunachal Pradesh, Assam, Nagaland and Manipur to resolve problem areas identified on the path towards non-territorial Naga

council while the NSCN (IM) could work towards peaceful resolution of the insurgency.

WORLD ENERGY OUTLOOK 2011-35

The International Energy Agency assesses the threats and opportunities facing the global energy system based on an analysis of energy and climate trends and state that there is a wide difference between the current government policy commitments and the international goal of limiting the long-term increase in the global mean temperature to 2°C above pre-industrial levels highlighting the critical role of governments to define the objectives and implement the policies necessary to shape our energy future.

In its annual **"World Energy Outlook 2011"**, it affirms a shift in dynamics of energy markets away from the OECD countries, a 25 year investment of 38 trillion dollars in energy infrastructure with the share of fossil fuels in primary energy consumption declining slightly from 81% in 2010 to 75% in 2035.

It predicts an increasing role for natural gas both from conventional as well as unconventional sources, and a 15% share for non-hydro renewables by 2035. In one of the scenarios, India is projected to be the second largest coal consumer after China and the largest coal importer from the 2020s and coal could be boosted by widespread deployment of more efficient coal-fired power plants and carbon capture and storage (CCS) technologies while Russia's

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AMOL AGRAWAL

Amol Agrawal blogs at *Mostly Economics* (mostlyeconomics.blogspot.com)

Pareto

Economics in small doses

POLITICAL ECONOMY OF GREECE CRISIS

French Prime Minister Nicholas Sarkozy (and many others before him) recently commented that it was a mistake to allow Greece to be part of Eurozone. An amazing paper by By TAKIS MICHA (Putting Politics above Markets: Historical Background to the Greek Debt Crisis) tells you why such comments are just so true. This paper tells you how Greece is similar to companies like Enron etc that have been fooling its stakeholders for a long time.

The paper says that even early history of Greece system was always centered around political patronage that has been disbursed through increases in public sector employment, regulations that limit competition, and the imposition of levies on transactions that benefit third parties. The resulting system has encouraged corruption, discouraged wealth creation and affected popular ideological narratives. It is amazing to note how every Greek wants to be in civil services as it is most rewarding financially. The fact that two thirds of the electorate is living

partly or wholly on government hand-outs significantly affects the ideological narratives that are popular in the country.

The view that the state is good and that markets are bad is widespread, held across the political spectrum and are seen as redistribution. But the realization of “putting people above markets” has deepened clientelism and produced the current national crisis.

One can't help but note how similar all this is in India as well especially the rent seeking and corruption. There is too much of Greece in India as well.

DECLINE OF MERITOCRACY IN US ECONOMY

An interesting thing to research is whether economists turn philosophers post a deep crisis like and start writing things about morals, society etc. Not that economists are not interested in such issues just that the interests in these areas rises sharply amidst such a crisis.

LUIGI ZINGALES writes on the loss of meritocracy in American society (Who Killed Horatio Alger?). He says foundation of American society

has always been meritocracy and Americans strong belief that merit should be rewarded. There is no role of luck and chance in American society. Interestingly, he also adds how America is more tolerant of inequality for the same reason.

What is shaking this foundation? There are *two powerful forces - first by a spreading belief that markets are a bad method of rewarding the meritorious. Second by a reduction of the benefits that most people derive from those markets.* He shares interesting anecdotes on how America system where now favors the big over merit. *Just note how these beliefs have been prevalent in Greece for a long time to understand dangers from such shifts in values.*

He points to two policies that could tilt the battle again towards meritocracy – primary education and taxing large corporates. It is a superbly written piece connecting many dots.

THINKING ABOUT INDIA ECONOMY VIA GLOBAL/ DOMESTIC MATRIX

SUBI GOKARN recently raised the issue of protein

inflation linking high growth to rising incomes which in turn has shifted food consumption pattern and led to higher demand of protein based items. Because supply of these items has not risen, the result is persistent rise in food inflation.

In a new speech (Growth, Resilience and Reform: Reflections on Post-crisis Policy Challenges) he presents an interesting matrix which looks at global growth and Indian growth on one side and favorable/unfavorable on the other. The situation was global favorable and India favorable in 2003-08. 2008-10 was unfavorable for both. Now India moves to India favorable and global unfavorable box. How do policymakers ensure India grows when global economy is still so unfavorable?

There are four challenges that need to be sorted so India can remain in the fourth quadrant of the matrix - Inflation particularly protein and food inflation, Movement of labour from agriculture to industry/services, Financial system

stability and capital account management. He misses the most important issue – fiscal responsibility.

He also does not touch on the top left quadrant of both domestic and global growth unfavorable. The way there is policy paralysis, we could be into it as well. There is a clear danger of the shift from bottom right corner to top left corner as well.

STRONGER GERMAN LABOUR MARKETS – GOOD POLICIES OR PLAIN LUCK?

When other countries like US are reeling under high unemployment, German employment picture has actually improved. This has usually led to statements by economists praising Germany's labor market policies. Economists have tried to explain this by praising German labor policies and institutions.

MICHAEL BURDA and JENNIFER HUNT explain the story is not as inspiring as it is made out to be (What Explains

the German Labor Market Miracle in the Great Recession?). They look at the reasons given so far for strong German employment markets - Did flexibility in hours per worker shield the labour market? Does wage moderation explain the employment pattern? Was there a potential role for labour-market reforms? They dispute all these three reasons with some role of special German labor market programs.

Their reason is actually quite funny. During the export boom years of 2005-07, German exporters did not employ many people as they did not expect the boom to last long. So, they had fewer people to begin with which led to much less firing in 2007 recession. It is as simple as that! All that talk about strong German labor policies and institutions is welcome but is not the story here.

German exporters were quite prescient on this crisis like some economists. Well, if German policymakers had heard their own exporters the impact of the crisis could be much lesser.

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large energy resources would underpin its continuing role as a cornerstone of the global energy economy over the coming decades.

G-20 ANNUAL PROGRESS CARD ON THE INTERNATIONAL MONETARY SYSTEM REFORMS

EDWIN TRUMAN, senior fellow at the Peterson Institute for International Economics tracks the progress made by the G-20 over the past year on

reform of the international monetary system over five key areas: i) surveillance of the global economy and financial system, ii) the international lender-of-last-resort mechanisms (global financial safety nets), iii) the management of global capital flows, iv) reserve assets and reserve currencies, and v) IMS governance.

In his policy brief for the PIIE Quarterly, “**G-20 Reforms of the International Monetary System: An Evolution**”, he states that

little progress had been made on most of the topics except for commitments by a few countries to allow their automatic stabilizers to operate in the current slowdown and marginal steps forward on the issues of the lender-of-last-resort issues, and codification of the progress made on the management of capital flows. He concludes that although the G-20 summit at Cannes resulted in some useful mutual education, there wasn't much more in terms of concrete accomplishments.

HARSH GUPTA

Harsh Gupta is Fellow with the Takshashila Institution

The concrete constitution

The original Indian constitution was a curious document - socially radical, yet politically conservative

The recent anti-corruption campaigns may not increase probity in public life but they have certainly sparked a debate about the Indian Constitution. Politicians, especially in the treasury benches, have criticised the movement and have implied the parliament to be supreme - they are wrong, the “basic structure” doctrine of Indian jurisprudence, which survived the 42nd amendment, assures us that the constitution is supreme. But many commentators have termed these peaceful agitations “unconstitutional” or at least contrary to an appropriate “constitutional morality”.

A very important question therefore is, what does constitutionality mean - especially in the Indian context? How did our constitution evolve from Ambedkar’s ideas through our two most constitutionally-consequential prime ministerships (Jawaharlal Nehru and Indira Gandhi) to the recent present? To try to find some of these answers, it is difficult to suggest a more scholarly and comprehensive book than Austin’s “Working a Democratic Constitution: A History of the Indian experience” (Oxford University Press).

The original Indian constitution was a curious document - socially radical, yet politically conservative. Codifying social custom would have meant legitimising feudalism, sexism, communalism and casteism, and that was (rightly) out of question, but on the administrative side the

Indian government largely continued with the top-down bureaucratic structure of the Britishers.

Though many social ills were not codified in the constitution, they were not aggressively punished through constitutionally mandated socio-economic engineering. Attacking feudalism and casteism up front, for example, would have meant attacking the Lockean right of property and the right of people to freely associate and discriminate, respectively. The founders did outlaw the excesses of casteism while putting in place a temporary affirmative action program, and they of course did away (in theory) the worst aspects of feudalism such as forced labour. But they tried to keep the constitution ideology-agnostic and nimble; Ambedkar, for example, specifically precluded socialism from the Constitution.

Yet after the deaths of Gandhi and Patel, Nehru towered over Indian politics. The eccentric Gandhi was strongly against centralisation of power, and even the more pragmatic Patel had specifically opposed the establishing of the Planning Commission. But Nehru, a Fabian socialist (Fabians were inspired by the Roman general Fabius Maximus who believed in war through attrition rather than confrontation) finally had his unilateral moment. He set out to fundamentally change the Constitution, just one and a half years after its adoption, through its very First Amendment. He

wanted “to fully secure the constitutional validity of Zamindari abolition laws and to place reasonable restriction on freedom of speech” Schedule 9 was introduced to protect laws that were contrary to the constitutionally guaranteed fundamental rights. The fall of India from a liberal republic to a majoritarian democracy had begun.

Zamindari was the one exception to property rights that even most liberals did not defend, and surely many Indian leaders foresaw a clash between Zamindari abolition and a fundamental right to property. Yet this exception was not explicitly included in the Constitution. Unfortunately, once Nehru devalued a fundamental right for a morally valid

reason, further changes with less consensus behind them gradually sprung up. In 1972, the 25th Amendment restricted property rights as well as compensation in case of takeovers (not just for agricultural land, but any property). In 1994, the 76th Amendment enabled the continuance of 69 percent reservation in Tamil Nadu by including the relevant Act under 9th Schedule of the constitution, a legislation which far from “annihilating” caste, further entrenched it.

Nor did Nehru set a good precedent on internal democracy and federalism. As Austin informs us, “The first use of President’s rule was a far cry from the Constituent Assembly’s intentions...The government of the Punjab in 1951 held a majority in the legislature, and the governor’s report to President Rajendra Prasad that the constitutional machinery had broken down was an official fiction. Additionally, the centre, and not the governor, had initiated the letter to the President... Nehru claimed that the law and order situation was worsening, but his arguments to Prasad that Bhargava was not acting ‘straight’ and it was inevitable for parties to give directions to their members told a different story.”

Working a Democratic Constitution - A
History of the Indian Experience,
by Granville Austin,
Oxford University Press, USA

But there was not just constitutional and political abuse, there was widespread corruption too. In 1956, the All India Manufacturers Association and the Federation of Indian Chambers of Commerce almost euphemistically expressed that “planning, although a good thing, contained dangers to democracy due to the concentration of power in government hands”.

Under Indira Gandhi’s Emergency and move to the Left in the 70s, things got worse. The Supreme Court did put up a fight. It initially struck down bank nationalisation.

Justice J C Shah “held that the ‘principles’ of compensation that a legislature could lay down for the taking of property were not beyond judicial scrutiny (for this could result in arbitrary parliamentary

action)” The legislature struck right back, and some of the parliamentary excesses were reversed only under the Janata Government (43rd and 44th amendments).

Napoleon Bonaparte had said that a constitution should be “short and obscure”, presumably to suit a dictator’s needs. Successive Indian governments have continued to obscure the constitution, though through sheer length – around a hundred amendments have, to paraphrase Nani Palkhivala, defaced and defiled the original constitution.

Ambedkar himself wrote: “It is propounded by Western writers on politics that all that is necessary for the realisation of self-government is the existence among a people of what Grote called constitutional morality... these notions are fallacious and grossly misleading... Habits of constitutional morality may be essential for the maintenance of a constitutional form of government. But the maintenance of a constitutional form of government is not the same thing as a self-government by the people...The recognition of the existence of a governing class as a fundamental and a crucial fact confronting democracy and

self-government is the only safe and realistic approach to those who wish for democracy and self-government to come into their own.”

An increasingly illiberal constitution has enabled cronyism in India. In such a case, anger at what Ambedkar called the “governing class” is symptomatic of our present constitution itself being relatively inimical to self-government. The confusion about constitutionality arises because there are two views here – a normative and therefore subjective view of what constitutionality should entail, and a legal view of what constitutionality actually entails. Normatively, it is indeed unfortunate that activists must resort to hunger strikes to highlight issues, yet legally this is acceptable so long as it is not “bloody” or “anarchic” (if for no other reason than that of precedent).

Austin keeps in mind the reality of Indian society throughout his treatise. He refers to it as a “survival society”, where education and empathy are still relatively low. Even Ambedkar had noted that without fraternity, liberty and equality are useless in practise. To overcome this poverty of our economy and society, our politicians - many of them well-meaning - successively concentrated too much power. The last couple of decades have finally seen some reverses, and to sustain them we must follow Austin’s lead and get down from atmospheric abstractions to dirty details. As Palkhivala said that to every policy and legislation, “we must apply the acid test – how far will it bend the talent, energy and time of our people to fruitful ends and how far will it dissipate them in coping with legal inanities and a bumbling bureaucracy”.



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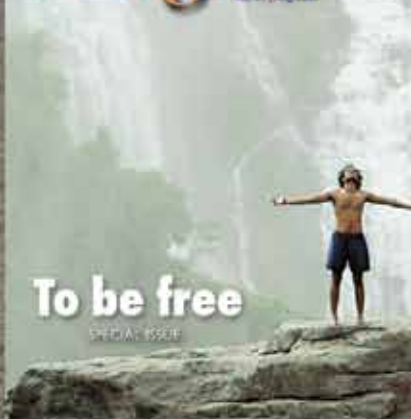
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